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AMENDMENTS TO THE CLAIMS

(The following includes a complete listing of all claims with their current status indicated. Additional language is underscored; deletions are stricken through.)

No claims have been amended in this paper.

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1. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode; oxidizing an upper surface of said non-oxide electrode using an O<sub>3</sub> gas plasma; depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode; and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.
2. (Original) A method as claimed in claim 1 wherein the oxidation of said upper surface of said non-oxide electrode is carried out in an atmosphere containing an oxidizing gas selected from the group consisting of O<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>O, and N<sub>2</sub>O.
3. (Original) A method as claimed in claim 1 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 700°C.
4. (Original) A method as claimed in claim 1 wherein said non-oxide electrode is selected from the group consisting of TiN, TaN, WN, and W.
5. (Original) A method as claimed in claim 1 wherein said high dielectric constant oxide dielectric material is selected from the group consisting of Al<sub>2</sub>O<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub> and Ba<sub>x</sub>Sr<sub>(1-x)</sub>TiO<sub>3</sub>.
6. (Original) A method as claimed in claim 1 wherein the oxidation of said upper surface of said non-oxide electrode is performed in an oxide dielectric deposition chamber under oxidizing conditions prior to the deposition of said high dielectric constant oxide dielectric material.

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Claim 7 – Cancelled.

8. (Previously Amended) A method as claimed in claim 1 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500° C.

9. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode using an O<sub>3</sub> gas plasma, depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

10. (Original) A method as claimed in claim 9 wherein said high dielectric constant oxide dielectric material is selected from the group consisting of Al<sub>2</sub>O<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub> and Ba<sub>x</sub>Sr<sub>(1-x)</sub>TiO<sub>3</sub>.

11. (Original) A method as claimed in claim 9 wherein the oxidation of said upper surface of said non-oxide electrode is carried out in an atmosphere containing an oxidizing gas selected from the group consisting of O<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>O, and N<sub>2</sub>O.

12. (Original) A method as claimed in claim 9 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 700°C.

13. (Original) A method as claimed in claim 9 wherein the oxidation of said upper surface of said non-oxide electrode is performed in an oxide dielectric deposition chamber under oxidizing conditions prior to the deposition of said high dielectric constant oxide dielectric material.

Claim 14 – Cancelled.

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15. (Previously Amended) A method as claimed in claim 9 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500° C.

16. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode using an O<sub>3</sub> gas plasma, depositing a high dielectric constant oxide dielectric material selected from the group consisting of Al<sub>2</sub>O<sub>3</sub>, Ta<sub>2</sub>O<sub>5</sub> and Ba<sub>x</sub>Sr<sub>(1-x)</sub>TiO<sub>3</sub> directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

17. (Original) A method as claimed in claim 16 wherein the oxidation of said upper surface of said non-oxide electrode is carried out in an atmosphere containing an oxidizing gas selected from the group consisting of O<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>O, and N<sub>2</sub>O.

18. (Original) A method as claimed in claim 16 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 700°C.

19. (Original) A method as claimed in claim 16 wherein the oxidation of said upper surface of said non-oxide electrode is performed in an oxide dielectric deposition chamber under oxidizing conditions prior to the deposition of said high dielectric constant oxide dielectric material.

Claim 20 – Cancelled.

21. (Previously Amended) A method as claimed in claim 16 wherein the oxidation is carried out at a temperature in the range of from about 250° to about 500° C.

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22. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode, in a deposition chamber oxidizing an upper surface of said non-oxide electrode, in the same deposition chamber depositing a high dielectric constant dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

C/ 23. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode, oxidizing an upper surface of said non-oxide electrode at a temperature in the range of from about 250° to about 700° C in an atmosphere containing a gas selected from the group consisting of O<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>O, and N<sub>2</sub>O, depositing a high dielectric constant dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

24. (Original) A method as claimed in claim 23 wherein said non-oxide electrode is selected from the group consisting of TiN, TaN, WN, and W.

25. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode, oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of O<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>O, and N<sub>2</sub>O, depositing a high dielectric constant dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

26. (Original) A method as claimed in claim 25 wherein the oxidation of said upper surface of said non-oxide electrode is carried out at a temperature in the range of from about 250° to about 500°C.

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27. (Original) The method of claim 25 wherein said non-oxide electrode is selected from TiN, TaN, WN, and W.

28. (Original) A method as claimed in claim 25 wherein said high dielectric constant oxide dielectric material is selected from the group consisting of  $\text{Al}_2\text{O}_3$ ,  $\text{Ta}_2\text{O}_5$  and  $\text{Ba}_x\text{Sr}_{(1-x)}\text{TiO}_3$ .

C | 29. (Original) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of  $\text{O}_2$ ,  $\text{O}_3$ ,  $\text{H}_2\text{O}$ , and  $\text{N}_2\text{O}$ , depositing a high dielectric constant oxide dielectric material selected from the group consisting of  $\text{Al}_2\text{O}_3$ ,  $\text{Ta}_2\text{O}_5$  and  $\text{Ba}_x\text{Sr}_{(1-x)}\text{TiO}_3$  on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

Claims 30-37 Canceled.

38. (Previously Amended) A method of forming a DRAM cell comprising providing a non-oxide electrode, oxidizing an upper surface of said non-oxide electrode, depositing a layer of a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, depositing an upper layer electrode on said layer of said high dielectric constant oxide dielectric material, providing a field effect transistor having a pair of source/drain regions, electrically connecting one of said source/drain regions with said conductive oxide electrode and electrically connecting the other of said source/drain regions with a bit line.

39. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, in a deposition chamber oxidizing an upper surface of said non-oxide electrode in an

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atmosphere containing a gas plasma generated from a gas selected from the group consisting of  $O_2$ ,  $O_3$ ,  $H_2O$ , and  $N_2O$ , in the same deposition chamber depositing a high dielectric constant oxide dielectric material selected from the group consisting of  $Al_2O_3$ ,  $Ta_2O_5$  and  $Ba_xSr_{(1-x)}TiO_3$  on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

C/ 40. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode, in a deposition chamber oxidizing an upper surface of said non-oxide electrode in an atmosphere containing a gas plasma generated from a gas selected from the group consisting of  $O_2$ ,  $O_3$ ,  $H_2O$ , and  $N_2O$ , in the same deposition chamber depositing a high dielectric constant dielectric material on the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

41. (Previously Amended) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, in a deposition chamber oxidizing an upper surface of said non-oxide electrode, in the same deposition chamber depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

42. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode; oxidizing an upper surface of said non-oxide electrode; depositing a high dielectric constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode; and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

43. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode, depositing a high dielectric

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constant oxide dielectric material directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

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44. (Previously Added) A method for forming a capacitor comprising: providing a non-oxide electrode selected from the group consisting of TiN, TaN, WN, and W, oxidizing an upper surface of said non-oxide electrode, depositing a high dielectric constant oxide dielectric material selected from the group consisting of  $\text{Al}_2\text{O}_3$ ,  $\text{Ta}_2\text{O}_5$  and  $\text{Ba}_x\text{Sr}_{(1-x)}\text{TiO}_3$  directly onto the oxidized surface of said non-oxide electrode, and depositing an upper layer electrode on said high dielectric constant oxide dielectric material.

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